CONTENTS OF VOLUME 9

No. 1, Spring, 1977

Exercise-induced bronchospasm—a review
Roy J. Shephard 1

Factors in delayed muscle soreness
William M. Abraham 11

Prevalence of coronary heart disease risk factors in active children, 7 to 12 years of age
Thomas B. Gilliam, Victor L. Katch, William Thorland and Arthur Weltman 21

Muscle strength and fiber composition in athletes and sedentary men
Alf Thorstensson, Lars Larsson, Per Tesch, and Jan Karlsson 26

Effects of frequency and duration of training on attrition and incidence of injury
Michael L. Pollock, Larry R. Gettman, Chris A. Milesis, Michael D. Bah, Larry Durstine, and Robert B. Johnson 31

Field estimation of $\dot{V}_{O_2}$ max in children eight years of age
G. S. Krahenbuhl, R. P. Pangrazi, L. N. Burkett, M. J. Schneider and G. Petersen 37

Oxygen cost of running in trained and untrained men and women
Donald R. Bransford and Edward T. Howley 41

Abstracts for the 1977 Annual Meeting of the American College of Sports Medicine 45

No. 2, Summer, 1977

Instructions for authors v

Policy statement regarding the use of human subjects and informed consent ix

Functional capabilities following coronary bypass surgery
Philip K. Wilson, Carl M. Maresh, Joseph W. Edgett, Jr. and A. Erik Gunderson 77

Effects of exercise on the severity of isoproterenol-induced myocardial infarction
Charles E. Riggs, Jr., Carl W. Landiss, George T. Jessup, and Hugh W. Bonner 83

EKG Changes using carotid artery for heart rate monitoring
James R. White 88

The effects of ephedrine on the physiological and psychological responses to submaximal and maximal exercise in man
Kenneth H. Sidney and Neville M. Lefcoe 95

Cross-sectional and longitudinal evaluations of an endurance training program
John F. Patton and James A. Vogel 100

Reliability and reproducibility of maximal oxygen uptake measurement in children
D. A. Cunningham, B. MacFarlane van Waterschoot, D. H. Paterson, M. Lefcoe, and S. P. Sangal 104

Characteristics of skeletal muscle in competitive cyclists
Edmund R. Burke, Frank Cerny, David Costill, and William Fink 109

The effect of bicycle seat height variation upon oxygen consumption and lower limb kinematics
Katherine S. Nordeen-Snyder 113

Anthropometric and physiologic profile of a cyclist—age 70
Irvin Faria and Marilyn Frankel 118

Perceived exertion associated with breathing hyperoxic mixtures during submaximal work
Paul D. Allen and Kent B. Pandolf 122

A kinematic model of performance in the parallel squat by champion powerlifters
Thomas A. McLaughlin, Charles J. Dillman, and Thomas J. Lardner 128

A note on the determination of angular velocities in human motion studies
Melvin Ramey and Clarence Nicodemus 134

CONTENTS OF VOLUME 9

No. 1, Spring, 1977

Exercise-induced bronchospasm—a review
Roy J. Shephard 1

Factors in delayed muscle soreness
William M. Abraham 11

Prevalence of coronary heart disease risk factors in active children, 7 to 12 years of age
Thomas B. Gilliam, Victor L. Katch, William Thorland and Arthur Weltman 21

Muscle strength and fiber composition in athletes and sedentary men
Alf Thorstensson, Lars Larsson, Per Tesch, and Jan Karlsson 26

Effects of frequency and duration of training on attrition and incidence of injury
Michael L. Pollock, Larry R. Gettman, Chris A. Milesis, Michael D. Bah, Larry Durstine, and Robert B. Johnson 31

Field estimation of $\dot{V}_{O_2}$ max in children eight years of age
G. S. Krahenbuhl, R. P. Pangrazi, L. N. Burkett, M. J. Schneider and G. Petersen 37

Oxygen cost of running in trained and untrained men and women
Donald R. Bransford and Edward T. Howley 41

Abstracts for the 1977 Annual Meeting of the American College of Sports Medicine 45

No. 2, Summer, 1977

Instructions for authors v

Policy statement regarding the use of human subjects and informed consent ix

Functional capabilities following coronary bypass surgery
Philip K. Wilson, Carl M. Maresh, Joseph W. Edgett, Jr. and A. Erik Gunderson 77

Effects of exercise on the severity of isoproterenol-induced myocardial infarction
Charles E. Riggs, Jr., Carl W. Landiss, George T. Jessup, and Hugh W. Bonner 83

EKG Changes using carotid artery for heart rate monitoring
James R. White 88

The effects of ephedrine on the physiological and psychological responses to submaximal and maximal exercise in man
Kenneth H. Sidney and Neville M. Lefcoe 95

Cross-sectional and longitudinal evaluations of an endurance training program
John F. Patton and James A. Vogel 100

Reliability and reproducibility of maximal oxygen uptake measurement in children
D. A. Cunningham, B. MacFarlane van Waterschoot, D. H. Paterson, M. Lefcoe, and S. P. Sangal 104

Characteristics of skeletal muscle in competitive cyclists
Edmund R. Burke, Frank Cerny, David Costill, and William Fink 109

The effect of bicycle seat height variation upon oxygen consumption and lower limb kinematics
Katherine S. Nordeen-Snyder 113

Anthropometric and physiologic profile of a cyclist—age 70
Irvin Faria and Marilyn Frankel 118

Perceived exertion associated with breathing hyperoxic mixtures during submaximal work
Paul D. Allen and Kent B. Pandolf 122

A kinematic model of performance in the parallel squat by champion powerlifters
Thomas A. McLaughlin, Charles J. Dillman, and Thomas J. Lardner 128

A note on the determination of angular velocities in human motion studies
Melvin Ramey and Clarence Nicodemus 134

No. 3, Fall, 1977

Capacity of young males and females for running in desert heat
D. B. Dill, Lars F. Soholt, Deanna C. McLean, Thomas F. Drost, Jr., and Mary T. Loughran 137

Cardiac outputs of post-myocardial infarction patients during swimming and cycling
George F. Heigenhauser, Daniel Boulet, Barry Miller, and John A. Faulkner 143

The cardiac output—oxygen uptake relationship of men during graded bicycle ergometry
John A. Faulkner, George F. Heigenhauser, and M. Anthony Schork 148

Exercise-induced changes in blood, red cell, and plasma volumes in man
J. E. Wilkerson, B. Gutin, and S. M. Horvath 155

Hemodynamic response to submaximal exercise after dehydration and rehydration in high school wrestlers
T. Earl Allen, Douglas P. Smith, and David K. Miller 159

The exercise electrocardiogram in trained and untrained adolescent males
James H. Rogers, Jr., Herman K. Hellerstein, and William B. Strong 164

The role of chronic exercise on resting blood pressures of normotensive and hypertensive rats
Charles M. Tipton, Ronald D. Matthes, Adrian Callahan, Tse-Kia Tcheng, and L. T. Lais 168

The psychobiological model and multiple discriminant function analysis of high-calibre oarsmen
L. R. T. Williams 178

Parameters of injury reporting in skiing
Ralph K. Requa, Jack M. Toney, and James G. Garrick 185

Metabolic responses to interval training programs of high and low power output
Edward L. Fox, Robert L. Bartels, James Klinzing, and Kerry Ragg 191

Instructions for authors xi

No. 4, Winter, 1977

Position Statement on the Use and Abuse of Anabolic-Androgenic Steroids in Sports xi

Prediction accuracy of body density, lean body weight, and total body volume equations
Andrew S. Jackson and Michael L. Pollock 197

The effects of circular and elliptical chainwheels on steady-rate cycle ergometer work efficiency
Scott C. Henderson, Raymond W. Ellis, Geraldine Klimovitch, and George A. Brooks 202

The reliability and internal consistency of the motivation rating scale and the general trait rating scale
Charles B. Corbin 208

Computer generated track and field scoring tables: III. Model evaluation and analysis
J. Gerry Purdy 212

Symposium on EXPERIMENTAL PREPARATIONS TO STUDY THE EFFECTS OF TRAINING ON THE CARDIOVASCULAR SYSTEM

Introduction
Charles M. Tipton and James Scheuer 219

The use of the Langendorff preparation to study the bradycardia of training
Charles M. Tipton, Ronald D. Matthes, Tse-Kia Tcheng, Russell T. Dowell, and Arthur C. Vailas 220

The advantages and disadvantages of the isolated perfused working rat heart
James Scheuer 231

The role of isolated cardiac muscle preparations in the study of training effects on the heart
Donald O. Nutter and Ellen O. Fuller 239

Experimental preparations to understand the cardiovascular effect of training: in situ preparation
Russell T. Dowell 246

The unanesthetized instrumented animal preparation
H. Lowell Stone 253

Invasive and noninvasive evaluation of exercise in humans
Herman L. Falsetti 262

1977 Guest Reviewers xv
Author index for Volume 9 xvi
Contents for Volume 9 xvii
Key word index for Volume 9 xix
Instructions for authors xxii
Policy statement regarding the use of human subjects and informed consent xxv